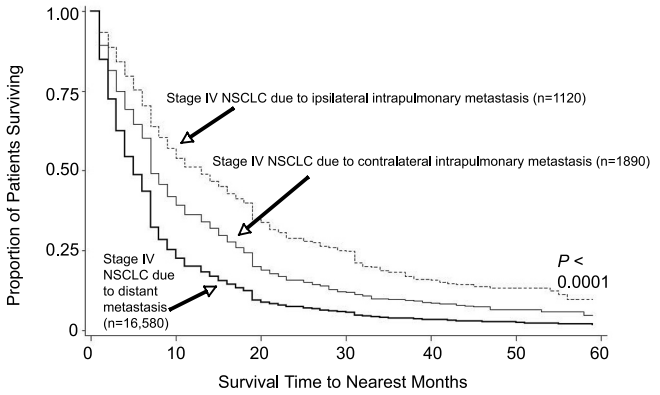
Figure 2. Overall survival for stage IV NSCLC, U.S. SEER data 1999-2003 (n=19,590).



adjustment for age, gender, ethnicity, and surgical treatment. Among stage IV NSCLC cases, those with ipsilateral intrapulmonary metastasis (n=1120) had improved OS (13m) compared to those with bilateral intrapulmonary metastasis (n=1890; OS=7m) (P < 0.0001) (Figure 2).

Conclusions: Among stage IIIB and IV NSCLC cases, those presenting with ipsilateral intrapulmonary metastasis have improved survival outcomes. Our results add further support for modification to the current non-small-cell lung cancer staging system.

A2-07 **Imaging - Prognostic Determinants, Mon, 13:45 - 15:30**

Usefulness of FDG-PET/CT for evaluation of tumor response after stereotactic radiosurgery in primary or metastatic lung cancer

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Purpose: To evaluate the usefulness of FDG-PET/CT (PET/CT), superior to CT, for determining tumor response to treatment after stereotactic radiosurgery (SRS) in primary or metastatic lung cancer

Methods: Thirty-five patients, with lung tumor, treated with SRS between July 2004 and June 2006 were reviewed. Treatment aim was curative or salvage in 30 primary or recurrent lung cancer patients, palliative in 15 metastatic lung cancer patients. SRS delivered 36, 48, or 60 Gy radiation, 12 or 20 Gy per fraction, to gross tumor with 5mm margin for 3 or 4 days consecutively. PET/CT was checked twice for measuring changes of maximal standardized uptake value (SUVmax), 1 or 2 months before and after SRS, and CT was checked coincidently. Evaluation of tumor response with PET/CT used a level of SUV change, and response criteria were divided into complete remission (CR; maximal SUV decrease ≥70%), partial remission (PR; 10-69% decrease), no response (NR; 10% decrease-10% increase), and disease progression (PD; >10% increase)

Results: SUVmax value in PET/CT before and after SRS were 0.80-13.10 (median 5.3) and background uptake-7.20 (median 1.70) respectively. Decrease rate of SUVmax was (-25.0)-98.3% (median 50.0%). Metabolic response judged by PET/CT was CR in 17 (37.8%), PR in 19 (42.2%), NR in 8 (17.8%), and PD in 1 (2.2%) patients. Clinical response judged by CT was CR in 2 (4.4%), PR in 18 (45.0%), NR in 20 (44.5%), PD in 5 (11.1%) patients. Peritumoral radiation induced pneumonitis or fibrosis was a confounding factor for evaluation with CT especially in PD or NR groups, but PET/CT could differentiate such inflammatory lesion with actual tumor progression in some patients.

Conclusion: PET/CT at 1 month after SRS could reflect actual response better than CT examined coincidently. FDG-PET/CT at 1 month before and after SRS might be a useful modality for evaluation of tumor response after treatment

Session A3: Cytotoxic Chemotherapy I

Monday, September 3

A3-01 **Cytotoxic Chemotherapy I, Mon, 13:45 - 15:30**

Correlation of tumor response and survival in advanced NSCLC patients treated with Paclitaxel plus Carboplatin (PC) vs Paclitaxel plus Carboplatin plus Gemcitabine (PCG)

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Background: We showed that PCG significantly increases both Response Rate (RR) (43.6% vs 20%) and median survival time (10.8 mo vs 8.3 mo) over PC and that at Cox analysis, the only independent prognostic factors were PS and Treatment (Paccagnella et al, J Clin Oncol 2006;24: 681-687).

According to the Prentice criteria (Stat Med 1989;8: 431-440), to directly relate Response and Survival it is necessarily that Responding patients (and non Responding) for both arms have a similar survival and that the survival difference between the two arms disappear when the Response Factor is included in the Multivariate Analysis.

Methods: Out of 324 pts included in the original analysis, 26 pts not evaluable for response (early death, toxicity, refusal) before the planned response evaluation at two months were excluded (15 pts from PC arm and 11 pts from PCG arm). The analysis was however also performed considering the no evaluable patients as non responders.

Results: Overall, Responder patients had a median Survival that nearly doubled that of no Responders: 14.73 mo vs 7.67 mo (HR: 0.49; CI: 0.31 - 0.54; P= 0.000).

No Responders pts from PC and PCG arms had a similar survival (median 7.53 mo and 8.07 mo respectively; P= 0.96) as well as responders (CR + PR) patients (median 14.13 mo and 15.40 mo respectively; P=0.38).

The only difference between the two arms was that more than the double of patients in PCG arm responded (43.6% vs 20%) and conse-

